REMARKS

Claims 1-5 and 8-9 are pending in the Application after entry of this amendment. Claims 1-9 have been rejected by Examiner. Claims 1 and 7 have been objected to. Claim 1 has been amended. Claims 6 and 7 have been cancelled. In particular, claim 1 is amended by adding features of cancelled claims 6, 7, as suggested by the Examiner. No new matter has been added.

Objections to the Claims

Claim 1 has been objected to lacking antecedent basis for "the video information item". Claim 1 has been amended as suggested by the Examiner to omit the term "item". Claim 7 has been objected to lacking antecedent basis for "the column line". Claim 7 has been cancelled. As such, Applicant respectfully requests that the Examiner withdraw the objection to Claims 1 and 7.

Claim Rejections Pursuant to 35 U.S.C. §112

Claim 1 has been rejected under 35 U.S.C. §112 being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claim 1 has been amended according to the Examiner's suggestion by adding the features of claims 6 and 7.

As described on page 3, lines 25-31, an object of the invention is to propose a new architecture of a valve for reducing its dimensions and decreasing its manufacturing cost. Such an object is achieved by applicants' invention as claimed in claim 1 by reducing the number of transistors and of capacitors of the drive circuit in comparison to the state of the art, some transistors and capacitors being shared between several liquid crystals. Indeed, as claimed in claim 1 and as illustrated in figures 5 and 7, a single transistor T3 and a single capacitor CS2 are used for each group of at least two elements of the valve when according to the state of the art (see figures 1, 3 and 4) each element of a valve comprises one transistor T3 and one capacitor CS2. In an

architecture in which the elements of the valve are grouped trougether in groups of 2, it is possible to dispense with one transistor and one capacitor for each group of 2 elements of the valve (see applicants' specification on page 9, lines 24-29). In an architecture in which the elements of the valve are grouped trougether in groups of 4, it is possible to dispense with three transistors and three capacitors for each group of 2 elements of the valve (see applicants' specification on page 11, lines 1-4). The grouping of several elements of a valve is possible by using a special coding of the video information and a special addressing of the coded video information in the valve, as explained in applicants' specification on page 6, lines 17-37). Indeed, as claimed in claim 1, the video information to be displayed on each element of the valve is coded as to be decomposed into two parts: the first part corresponding to a value common to a group of at least two elements (i.e. two pixels) and the second part corresponding to a value specific to each single element (i.e. to each pixel). An example of such a coding is given on page 7, line 34 to page 8, line 12 of applicants' specification. By simultaneously addressing the at least two elements of a group elements, it is possible to transmit the common value of the video information to be displayed by the elements of the group, the common value being stored by the second capacitor CS2 of the common drive means, one common drive means being associated to the group of at least two elements. The specific values, enabling to display the "correct" video information on each element (i.e. on each pixel) of the group, are stored on the capacitor CS1 of the specific drive means, one specific drive means being associated to each element of the valve. The specific values of each pixel of a group of pixels of the image for each colour are provided alternating with the common values corresponding to the group of pixels. Transistors comprised in the specific drive means and in the common drive means are controlled to be turned on/off consequently. Such an operation mode is illustrated by figure 6 and described in the corresponding part of applicants' specification (see page 8, line 30 to page 9, line 22).

Amended claim 1 thus comprises all features enabling to achieve the object of the invention and distinctly claims the subject matter which applicant regards as the invention.

Claim Rejections Pursuant to 35 U.S.C. §103

Claims 1-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al (US2004/0041768) in view of well known art. Applicant respectfully submits that Chen fails to disclose, teach, or suggest each and every element of pending Claims 1-9.

Chen discloses a driving circuit of a liquid crystal on silicon (LCOS) cell structure and a method for controlling the driving circuit. An object of Chen is to provide a driving circuit providing a higher video image quality by allowing the liquid crystal (LC) response time to be shortened. Indeed, Chen departs from a pixel structure of a LCOS of the state of the art having six transistors (see fig. 3a), which poses a problem of silicium integration and does not enable to reduce the LC time response nor to increase the Light Strobing time (LS). These objects are achieved by the driving circuit of Chen, which comprises a structure comprising 4 transistors (Tad11, Taw11, TBd11 and TBw11) and 2 capacitors (Cs A11 and Cs B11) with an added reset transistor (Tr11) for reducing LC time response and increasing LS (see fig. 6). Figure 4 of Chen illustrates the structure above without the reset transistor (Tr11), i.e. e structure comprising 4 transistors (Tad11, Taw11, TBd11 and TBw11) and 2 capacitors (Cs A11 and Cs B11). The structure illustrated on Fig. 4 is exactly the same as the structure illustrated by Figures 1, 3 and 4 of applicants' specifications, applicants' figures 1, 3 and 4 corresponding to the state of the art.

Chen in no way discloses means for coding, for each image, the video information intended to be displayed by each of the elements of the valve as a common value shared by a group of at least two adjacent elements of the valve and a specific value, nor specific drive means associated to each element of the valve and intended to

store the specific value nor common drive means associated to each group of at least two elements of the valve and intended to store the common value, let alone the structures of the specific drive means and of the common drive means as claimed in amended claim 1. Chen corresponds to the state of the art disclosed in applicants' specification that applicants' invention aims at improving by reducing the number of transistors and the number of capacitors, as explained just before. Indeed, according to applicants' invention as claimed in claim 1 (and depending on the number of elements comprised in a group of elements), the number of transistors pro element used in the drive means is less than 4 (for example 7 transistors for two elements if the number of elements comprised in the group is 2 or 13 transistors for 4 elements if the number of elements comprised in the group is 4) and the number of capacitors pro element is less than 2 (for example 3 capacitors for two elements if the number of elements comprised in the group is 2 or 5 capacitors for 4 elements if the number of elements comprised in the group is 4).

Applicant respectfully submits that amended independent Claim 1 is thus not rendered obvious under 35 USC §103(a) because all elements of the pending claims are not disclosed, taught, or suggested in the cited art. Claims 2-5 and 8-9 depend from claim 1 and as such are also not obvious in view of cited art. Applicant respectfully requests reconsideration of the 35 U.S.C. §103(a) rejection of pending Claims 1-5 and 8-9 based on the remarks above.

CONCLUSION

Applicant respectfully submits that the amended pending claims patentably define over the cited art and respectfully requests reconsideration and withdrawal of the 35 U.S.C. §103 rejection of the pending claims. Renewed reconsideration for a Notice of Allowance is respectfully requested.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 07-0832 therefore.

Serial No. 10/589,930
Reply to Office Action Dated 3/29/10

PF040025
Customer No. 24498

Respectfully submitted,
Patrick Morvan

Date: August 30, 2010

James McKenzie
Attorney for Applicant
Registration No. 51,146
(609) 734-6866

Thomson Licensing, LLC
Patent Operation
PO Box 5312
Princeton, NJ 08543-5312